

**Notice of Allowability**

Application No.

10/051,966

Examiner

Daniel E Valencia

Applicant(s)

LI ET AL

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed September 16, 2003.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 15 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
- (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
- (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- 1 ☐ Notice of References Cited (PTO-892)
- 3 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 5 ☐ Information Disclosure Statements (PTO-1449), Paper No. \_\_\_\_\_.
- 7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)
- 4 ☐ Interview Summary (PTO-413), Paper No. \_\_\_\_\_.
- 6 ☐ Examiner's Amendment/Comment
- 8 ☒ Examiner's Statement of Reasons for Allowance
- 9 ☐ Other

## **DETAILED ACTION**

This Office Action is in response to Applicant's communication filed September 16, 2003. In accordance with the communication filed, claims 1, 5, 6, 8, 12, and 13 have been amended. Applicant has taken allowable subject matter, as suggested by the Examiner, and amended it into independent claim form, putting the application in condition for allowance.

### ***Specification***

In the previous Office Action, Examiner objected to the title as being non-descriptive. Applicant neither amended the title nor addressed this objection in the communication filed September 16, 2003. However, in view of further consideration the objection to the title has been withdrawn, because Examiner deems that it sufficiently describes the nature of the invention.

### ***Allowable Subject Matter***

Claims 1-14 are allowed.

The following is an examiner's statement of reasons for allowance: As to claim 1, the prior art alone fails to disclose or render obvious an optical switch comprising: a triple fiber collimator for receiving an optical signal from a first fiber and outputting the optical signal to a second fiber or a third fiber; a beam deflector having a first portion and a second portion; and a reflector the beam deflector residing between the reflector and the triple fiber collimator, wherein the

optical signal travels through the first portion of the beam deflector is reflected by the reflector and is output over the second fiber when the beam deflector is in a first position and wherein the optical signal travels through the second portion of the beam deflector is reflected by the reflector and is output over the third fiber when the beam deflector is in a second position and wherein the optical signal has a beam-separation angle between a beam incident upon the reflector and a beam reflected by the reflector, and wherein the beam deflector has an index of refraction ( $n$ ) and a first angle ( $\alpha$ ), wherein the beam separation angle, ( $\beta$ ) and a first angle ( $\alpha$ ) of the beam deflector obey the relationship required by claim 1. For example, Li and Nosaka both disclose optical switches using optical fibers and beam deflectors; however, neither of them makes any mention of the separation of angle.

Likewise, independent claims 5, 8, and 12, require the relationship described in claim 1 between the index of refraction (of the beam deflector), the first angle (of the beam deflector), and the separation angle (between incident beams of light).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

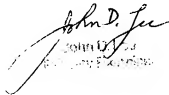
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel E Valencia whose telephone number is (703)-305-4399. The examiner can normally be reached on Monday-Friday 9:30-6:00.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.



DEV



John D. Lee  
Examiner